REMARKS

In accordance with the foregoing, claims 4, 12, 40, and 41 have been amended. No new matter is being presented, and approval and entry are respectfully requested. Claims 1, 2, 4-7, 9, 10, 12-15, 17-23, 25-29, and 31-41 are pending and under consideration. Reconsideration is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1, 2, 4-7, 9, 10, 12-15, 17-23, 25-29, and 31-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohta (U.S. Patent No. 6,980,319) and Torikai (Japanese Publication No. 10-091375) and Mazzagatte et al. (U.S. Patent No. 7,454,796) further in view of Hayashi (U.S. Patent No. 7,089,321).

Claim 1 recites "managing printing operations of the at least one printing client according to the list by permitting only printing clients authenticated to receive services of the wireless LAN printer to associate with the wireless LAN printer..."

Ohta discusses "during the course of printing, if any of the print stations 12A, 12B, and 12C develops a problem such as a paper jam, the print server 13 retransmits the print job to the restored print station."(see col. 4, line 66 to col. 5, line 2 of Ohta).

As noted above, Ohta fails to disclose "managing printing operations of the at least one printing client according to the list by permitting only printing clients authenticated to receive services of the wireless LAN printer to associate with the wireless LAN printer..." as recited in claim 1.

The Office Action acknowledges that Ohta fails to disclose "forming a list of the at least one printing client by using a Media Access Control address of the Media Access Control frame as an index, the list reflecting a state of the at least one printing client in relation to the wireless LAN printer..."

Claim 1 recites "extracting information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer..."

However, the Examiner relies on Torikai to discuss the same.

In contrast, Torikai discusses "this network printer is equipped with an order control means 100 which extracts a transmission destination MAC address from a print request packet, acquires the priority corresponding to it from a priority table 6, and registers the MAC address of a corresponding host device in a queue table 11 according to the obtained priority. Further, this printer is equipped with a request-to-send part 12 which sends a request-to-send packet back to the MAC address at the head of the queue table 11 as a return destination when a print data process part 13 completes a process regarding one print request" (see abstract of Torikai).

Thus, Torikai fails to disclose "extracting information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer..."

More particularly, Torikai does not discuss or suggest "a Basic Service Set" as in the present invention.

Claim 1 recites "wherein the list of the at least one printing client is restructured in real time according to a beacon signal, and the list is updated when a state of the at least one printing client changes."

Hayashi discloses "with this embodiment, the request signals constituting request data from the wireless client devices 2 and 3 are also transmitted in packets each laid out in a predetermined manner. FIG. 5 is an explanatory view depicting a typical layout of a packet in which the wireless client device 2 or 3 transmits a request signal."(see col. 10, lines 27-33 and FIG. 5 of Hayashi).

As noted above, Hayashi merely discloses a layout of packet, but fails to disclose "wherein the list of the at least one printing client is restructured in real time according to a beacon signal, and the list is updated when a state of the at least one printing client changes" as recited in claim 1.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 1.

Claim 2 recites "wherein the wireless Local Area Network printer and the at least one printing client operate within the IEEE 802.11b standard."

Ohta discusses "In general, except for the portable digital device 11, all of the above components of the remote printing system are connected physically as well as wirelessly to a cable network 15. One example of the wireless communication protocols is "BlueTooth." The portable digital devices 11 include a cellular phone, a note-size computer and a personal digital assistant (PDA). The portable digital device 11_1 is wirelessly connected to the network 15 via a wireless communication unit 11_1 and the access point 16."(see col. 4, lines 4-53 of Ohta).

As noted above, Ohta merely discloses "The portable digital device 11 is wirelessly connected to the network 15 via a wireless communication unit 11_1 and the access point 16," but fails to disclose "wherein the wireless Local Area Network printer and the at least one printing client operate within the IEEE 802.11b standard" as recited in claim 2.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 2.

Claim 4 has been amended to recite "wherein the list of the at least one printing client denotes state of the at least one printing client in relation to the wireless Local Area Network printer and includes fields for at least one of synchronization and association."

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 4.

Claim 5 recites "The method according to claim 1, wherein the list of the at least one printing client includes fields specifying whether each printing client is allowed to associate with the wireless Local Area Network printer."

Mazzagatte et al. discusses "as shown in FIG. 5, one or more sending nodes 510 such as computer 10, a print server 540 such as server 40, and at least one printing device 550 such as printer 50, communicate via a network 500" (see col. 11, lines 52-55 of Mazzagatte et al.).

As noted above, Mazzagatte et al. fails to disclose "the list of the at least one printing client includes fields specifying whether each printing client is allowed to associate with the wireless Local Area Network printer." as recited in claim 5.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 5.

Claim 6 recites "The method according to claim 1, wherein the list of the at least one printing client includes fields assigning a printing priority to the at least one printing client."

Ohta discusses "the printer server 13 allocates its resource for each transfer process based upon the corresponding priority as managed in the queue" (see col. 6, lines 25-27 of Ohata).

As noted above, Ohta fails to disclose "wherein the list of the at least one printing client includes fields assigning a printing priority to the at least one printing client" as recited in claim 6 but merely disclose "allocating its resource for each transfer process based upon the corresponding priority as managed in the queue."

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 6.

Claim 7 recites "The method according to claim 1, wherein the list of the at least one printing client includes fields denoting whether specific functions of the wireless Local Area Network printer are usable by the at least one printing client."

Ohta discusses "The print stations 12A, 12B and 12C each have a corresponding wireless communication unit $12A_1$, $12B_1$ or $12C_1$ to wirelessly as well as directly via the cable network 15 communicate with the portable digital device 11. note-size computer and a personal digital assistant (PDA). The portable digital device 11 is wirelessly connected to the network 15 via a wireless communication unit 11_1 and the access point 16."(see col. 4, lines 55-59 of Ohta).

As noted above, Ohta fails to disclose "The method according to claim 1, wherein the list of the at least one printing client includes fields denoting whether specific functions of the wireless Local Area Network printer are usable by the at least one printing client." as recited in claim 7.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 7.

Regarding claim 9, the Office Action acknowledges that Ohta fails to disclose "an extraction unit to extract information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer; a list forming unit to form a list of the at least one printing client using a Media Access Control address of the Media Access Control frame as an index, the list reflecting a state of the at least one printing client in relation to the wireless LAN printer."

Torikai discusses "this network print is equipped with an order control means 100 which extracts a transmission destination MAC address from a print request packet, acquires the priority corresponding to it from a priority table 6, and registers the MAC address of a corresponding host device in a queue table 11 according to the obtained priority. Further, this printer is equipped what a request-to-send part 12 which sends a request-to-send packet back to the MAC address at the head of the queue table 11 as a return destination when a print data process part 13 completes a process regarding one print request"(see abstract of Torikai).

Thus, Torikai fails to disclose "extracting information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer..."

Mazzagatte et al. discusses "the term 'authenticated print job' means a print job that can only be printed out after the intended recipient has been authenticated. That is an authenticated print job contains unique identification information of the intended recipient and is held off from being printed until the recipient has been authenticated at the printer. One the recipient has been authenticated, the authenticated print job is released for printing"(see col. 11, lines 40-45 of

Mazzagatte et al.).

As noted above, Mazzagatte et al. merely discusses the meaning of "authenticated print job," but fails to discuss "disclose "extracting information from a Media Access Control frame of the at least one printing client that is associated with a Basic Service Set, which includes the wireless LAN printer, the extracted information being information specifying whether the at least one printing client is authenticated to receive services of the wireless LAN printer..." as recited in claim 9.

Claim 9 recites "wherein the list of the at least one printing client is restructured in real time according to a beacon signal, and the list is updated when a state of the at least one printing client changes..."

Hayashi discloses "with this embodiment, the request signals constituting request data from the wireless client devices 2 and 3 are also transmitted in packets each laid out in a predetermined manner. FIG. 5 is an explanatory view depicting a typical layout of a packet in which the wireless client device 2 or 3 transmits a request signal."(see col. 10, lines 27-33 and FIG. 5 of Hayashi).

As noted above, Hayashi merely discloses a layout of packet, but fails to disclose "wherein the list of the at least one printing client is restructured in real time according to a beacon signal, and the list is updated when a state of the at least one printing client changes." as recited in claim 9.

Claim 10 recites "wherein the wireless Local Area Network printer and the at least one printing client operate within the IEEE 802.11b standard."

Ohta discusses "In general, except for the portable digital device 11, all of the above components of the remote printing system are connected physically as well as wirelessly to a cable network 15. One example of the wireless communication protocols is "BlueTooth." The portable digital devices 11 include a cellular phone, a note-size computer and a personal digital assistant (PDA). The portable digital device 11 is wirelessly connected to the network 15 via a wireless communication unit 11_1 and the access point 16."(see col. 4, lines 4-53 of Ohta).

As noted above, Ohta merely discloses "The portable digital device 11 is wirelessly connected to the network 15 via a wireless communication unit 11_1 and the access point 16," but fails to disclose "wherein the wireless Local Area Network printer and the at least one printing client operate within the IEEE 802.11b standard." as recited in claim 10.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 10.

Claim 12 has been amended to recite "wherein the list of the at least one printing client denotes state of the at least one printing client in relation to the wireless Local Area Network printer and includes fields for at least one of synchronization and association."

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 12.

Claim 13 recites "The method according to claim 9, wherein the list of the at least one printing client includes fields specifying whether each printing client is allowed to associate with the wireless Local Area Network printer."

Mazzagatte et al. discusses "as shown in FIG. 5, one or more sending nodes 510 such as computer 10, a print server 540 such as server 40, and at least one printing device 550 such as printer 50, communicate via a network 500."(see col. 11, lines 52-55 of Mazzagatte et al.).

As noted above, Mazzagatte et al. fails to disclose "the list of the at least one printing client includes fields specifying whether each printing client is allowed to associate with the wireless Local Area Network printer." as recited in claim 13.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 13.

Claim 14 recites "The method according to claim 9, wherein the list of the at least one printing client includes fields assigning a printing priority to the at least one printing client."

Ohata discusses "the printer server 13 allocates its resource for each transfer process based upon the corresponding priority as managed in the queue." (see col. 6, lines 25-27 of Ohata).

As noted above, Ohta fails to disclose "wherein the list of the at least one printing client includes fields assigning a printing priority to the at least one printing client" as recited in claim 6 but merely disclose "allocating its resource for each transfer process based upon the corresponding priority as managed in the queue."

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 13.

Claim 15 recites "The method according to claim 9, wherein the list of the at least one printing client includes fields denoting whether specific functions of the wireless Local Area Network printer are usable by the at least one printing client."

Ohta discusses "The print stations 12A, 12B and 12C each have a corresponding wireless communication unit $12A_1$, $12B_1$ or $12C_1$ to wirelessly as well as directly via the cable network 15 communicate with the portable digital device 11. note-size computer and a personal digital assistant (PDA). The portable digital device 11 is wirelessly connected to the network 15 via a wireless communication unit 11_1 and the access point 16."(see col. 4, lines 55-59 of Ohta).

As noted above, Ohta fails to disclose "The method according to claim 1, wherein the list of the at least one printing client includes fields denoting whether specific functions of the wireless Local Area Network printer are usable by the at least one printing client." as recited in claim 15.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 15.

In addition, claims 17-18, 25-29, and 31-32, and 35-38 are patentable due at least to their depending from claim 9, as well as for the additional recitations therein.

Claims 19-23 are patentable due at least to their depending from claim 1, as well as for the additional recitations therein.

Claim 40 has been amended to clarify the present invention.

Claims 33 and 39 and claims 34 and 40 which depending from claims 33 and 39, respectively, are patentable due at least the same or similar rationales as claim 1, as well as for the additional recitations therein.

Claim 41 has been amended to clarify the present application.

Claim 41 recites "wherein each field denoting whether specific functions of the wireless Local Area Network printer is enabled or disabled according to functions desired by a user."

Mazzagatte et al. discusses "Also coupled to printer bus 300 are control logic 320, which is utilized to control printer engine 325 of printer 50, I/O ports 330 which is used to communicate with various input/output devices of printer 50 (not shown), smart card interface 365 which is utilized to interface with smart card interface device 55, network interface 360 which is utilized to interface printer 50 to network 100, and control device interface 356 which is utilized to interface with a device for obtaining control of the printer operations. network interface 360 which is utilized to interface printer 50 to network 100, and control device interface 356 which is utilized to interface with a device for obtaining control of the printer"(see col. 7, lines 20-34 of Mazzagatte et al.).

Mazzagatte et al. merely discloses "Control device interface 356 may interface with virtually any type of mechanism that a user may activate to obtain control of the printer. For instance, control device interface 356 may interface with a button on a control panel of printer 50, whereby the user pushes the button to gain control over the printer," but fails to disclose "wherein each field denoting whether specific functions of the wireless Local Area Network printer is enabled or disabled according to functions desired by a user." as recited in claim 41.

Accordingly, it is respectfully submitted that combination of Ohta, Torikai, Mazzagatte et al., and Hayashi does not teach or suggest the invention as recited in claim 41.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: Dec. 17, 2010

By:
Sang Chul Kwon
Registration No. 63,153

1201 New York Avenue, N.W., 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501